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GPO/2166

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of  : Brittain, Jean H. et al.  
Serial No. : 09/681,420  
Filing Date : March 30, 2001  
Title : *Method and Apparatus of Acquiring Large FOV Images Without Slab-Boundary Artifacts*  
Group Art No. : 2166  
Examiner :  
Attorney Docket No. : GEMS8081.059

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CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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**SUPPLEMENTAL (SECOND)  
INFORMATION DISCLOSURE STATEMENT  
UNDER 37 C.F.R. §1.97/99**

Dear Sir:

In compliance with Applicants' duty of disclosure as set forth in 37 C.F.R. §1.56, listed on the attached equivalent to Form PTO-1449 are those patents, publications, and other

information known to the Applicant(s) which may be considered material to the patentability of the claims of the above-captioned application. One copy of each reference is attached.

Applicants would like to make the Examiner aware that the following pending U.S. patent applications might be considered relevant to the examination of this application:

U.S. Ser. No. 09/292,548 filed April 15, 1999;

U.S. Ser. No. 10/098,013 filed March 13, 2002;

U.S. Ser. No. 09/591,300 filed June 9, 2000;

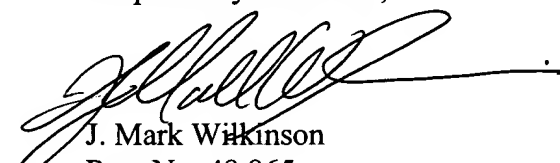
U.S. Ser. No. 10/063,829 filed May 16, 2002;

U.S. Ser. No. 10/147,701 filed May 17, 2002; and

U.S. Ser. No. 09/595,117 filed June 16, 2000.

The Applicants respectfully request that the documents listed on the attached equivalent to Form PTO-1449 be considered by the Examiner, that the references be made of record in the present application, and that an initialed copy of the duplicate equivalent to Form PTO-1449 be returned to the undersigned in accordance with MPEP 609.

Respectfully submitted,



J. Mark Wilkinson  
Reg. No. 48,865

Date: July 26, 2002

P.O. ADDRESS:

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Substitute for form 1449A/PTO

**SUPPLEMENTAL  
INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(use as many sheets as necessary)

Sheet

1

of

2

**Complete if Known**

Application Number

09/681,420

**Filing Date**

3/30/2001

**First Named Inventor**

Brittain et al.

## Art Unit

Examiner Name

Attorney Docket Number

GEMS8081.059

## U.S. PATENT DOCUMENTS

[illegible]

## FOREIGN PATENT DOCUMENTS

[illegible]

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|-----------------------|--|--------------------|--|
| Examiner<br>Signature |  | Date<br>Considered |  |
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STATEMENT BY APPLICANT**

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Sheet

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|                        |                 |
|------------------------|-----------------|
| Application Number     | 09/681,420      |
| Filing Date            | 3/30/2001       |
| First Named Inventor   | Brittain et al. |
| Group Art Unit         |                 |
| Examiner Name          |                 |
| Attorney Docket Number | GEMS8081.059    |

**OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS**

| Examiner Initials* | Cite, No. | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.                              | T <sup>2</sup> |
|--------------------|-----------|--|----------------|
|                    | C1        | Moran, PR. A flow velocity zeugmatographic interface for NMR imaging in humans. Magnetic Resonance Imaging 1982; 1: 197-203.   |                |
|                    | C2        | Bryant DJ, Payne JA, Firmin DN, and Longmore DB. Measurement of flow with NMR imaging using a gradient pulse and phase difference technique. J Comput Assist Tomogr 1984; 8: 588-93.   |                |
|                    | C3        | Van Dijk P. Direct cardiac NMR imaging of heart wall and blood flow velocity. J. Comput Assist Tomogr 1984; 8: 429-36.   |                |
|                    | C4        | Nayler GL, Firmin DN, and Longmore DB. Blood flow imaging by cine magnetic resonance. J Comput Assist Tomogr 1986; 10: 715-22.   |                |
|                    | C5        | Swan JS, Grist TM, Weber DM, Sproat IA, and Wojtowycz MM. MR angiography of the pelvis with variable velocity encoding and a phase-array coil. Radiology 1994; 190: 363-9.   |                |
|                    | C6        | Swan JS, Weber DM, Grist TM, Wojtowycz MM, Korosec FR, and Mistretta CA. Peripheral MR angiography with variable velocity encoding. Work in progress. Radiology 1992; 813-7.   |                |
|                    | C7        | Ehman RL, Felmlee JP. Adaptive technique for high definition MR imaging of moving structures. Radiology 1998; 173: 255-263.  |                |
|                    | C8        | Ho KY, Leiner T, de Haan MW, Kessels AG, Kitslaar PF, and van Engelshoven JM. Peripheral vasculature tree stenoses: evaluation with moving-bed infusion-tracking MR angiography. Radiology 1998; 206: 683-92.  |                |
|                    | C9        | Meaney JF, Ridgway JP, Chakraverly S, Robertson I, Kessel D, Radjenovic A, Kouwenhoven M, Kassner A, and Smith MA. Stepping-table gadolinium-enhanced digital subtraction MR angiography of the aorta and lower extremity arteries; preliminary experience. Radiology 1999; 211: 59-67.      |                |
|                    | C10       | Foo TKF, Saranathan M, Prince MR, and Chenevert TL. Automated detection of bolus arrival and initiation of data acquisition in fast, three-dimensional, gadolinium-enhanced MR angiography. Radiology 1997; 203: 275-80.   |                |
|                    | C11       | Wilman AH, Riederer SJ, Huston J. 3 <sup>rd</sup> , Wald JT, and Debbins JP. Arterial phase carotid and vertebral artery imaging in 3D contrast-enhanced MR angiography by combining fluoroscopic triggering with an elliptical centric acquisition order. Magn. Reson Med. 1998; 40: 24-35. |                |
|                    | C12       | Riederer SJ, Fain SB, Kruger DG, and Busse RF. 3D-enhanced MR angiography using fluoroscopic triggering and an elliptical centric view order. Int. J. Card Imaging 1999; 15: 117-29.   |                |
|                    | C13       | Prince MR, Chenevert TL, Foo TKF, Londy FJ, Ward JS, Maki JH. Contrast enhanced abdominal MR angiography: Optimization of imaging delay time by automating the detection of contrast material arrival in the aorta. Radiology 1997; 203: 109-114.  |                |
|                    | C14       | Meany, Dr. James FM, Leeds General Infirmary, Leeds UK Moving Bed MRA, The Future of Peripheral Arteriography? Phillips  |                |
|                    | C15       | Kouwenhoven, M., MRA with moving bed imaging, IX International Workshop on Magnetic Resonance Angiography and Introductory Course "New Horizons on MRA and CTA", Valencia, October 7-11, 1997, Book of Abstracts, The MR Angio Club, p. 158.   |                |
|                    | C16       | Kruger, DG., Riederer, S.J., Grimm, R.C., Rossman, P.J., Continuously moving table data acquisition method for long FOV contrast-enhanced MRA and whole-body MRI. Magnetic Resonance in Medicine, 47: 224-231 (2002)   |                |

Examiner  
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Considered